

PORSE
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Childs, John

From: Quinn, Padraic (Pad)
Sent: Wednesday, December 13, 2000 12:59 PM
To: Ring, Jeffery (Jeff); Degens, Sebastian; Moulton, Robert
Cc: Childs, John; Koshuta, Cheryl; Harbert, Trey; Wilson, Michelle; Hermans, Marcel
Subject: T6 Maint Dredging - USFW

T6 Maint. Dredging
Transmittal...

T6 Maint Dreging
Response to A...

These are the two letters that went out today. One to Judy Linton at ACOE on our response to comments made by USFW on the public notice. The second letter is a transmittal to USFW of the ACOE letter and the latest sediment data which was also delivered today to USFW.

Judy, with assistance from her management, will make her assessment later today on the impact to the Bald Eagle. She said she would call us and then fax her letter to USFW and us when completed. I will call her in the morning if we have not heard anything from her by that time.

USEPA SF



1286341

December 13, 2000

Kathi Larson
US Department of the Interior
Fish and Wildlife Service
Oregon State Office
2600 SE 98th Avenue, Suite 100
Portland, Oregon 97266

Re: Port of Portland Terminal 5 & Terminal 6 Maintenance Dredging
And Response to Fish and Wildlife Service comments on PN 00-950

Dear Ms. Larson:

The Port of Portland is planning to conduct maintenance dredging at Terminal 5 Berth 503 (permit no. 071-OYA-1-008760) and Terminal 6. Berths 603-605 (permit no. 96-496). This work which will be conducted under existing permits is scheduled to begin January 6, 2001. In addition, the Port has also submitted an application to the ACOE for renewal of the permit (expiration date September 30, 2001) for maintenance dredging at T6 Berth 601, 603-605 and 607.

The Service submitted comments on the Corps Public Notice 00-950 which was for the renewal of the permit for maintenance dredging at Terminal 6 Berths 601, 603-605 and 607. Since that public notice was issued the Port has collected additional sediment data for the upcoming maintenance dredging project. I feel that this additional data is relevant to both the upcoming maintenance dredging and for the permit renewal. I have included a copy of the report (Dredge Material Characterization T6 B603-605, T5 B503 Hart Crowser 2000) for the Service.

In addition, the Port has responded to the comments that the Service made regarding the Terminal 6 Maintenance Dredging permit renewal. Our response is directed to the Corps but I have included a copy with attachments to the Service as well.

As we discussed on the phone this morning there may be others at the Service that would be interested in seeing this information. If you identify who those other individuals are I would be glad to forward this information to them or you can get copies to them. I know that Jeremy Buck in your office is interested in this project and the permit renewal and if you could, please see that he receives this most recent information as well.

The upcoming maintenance dredging project at Terminal 5 and Terminal 6 is of utmost importance and urgency to the Port and our continued operation at these facilities. We would be happy to discuss either of these two issues with you or other Service staff, and will likely be contacting you in the next few days to begin that discussion.

We look forward to working with the Service on these issues and if you would like to contact me directly I can be reached at (503) 240-2014.

Sincerely,

Pad Quinn
Environmental & Safety Manager
Marine Department

Attachments

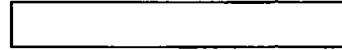
Cc: Jeremy Buck – USFW (w/o attachments)
Kemper M. McMaster – USFW (w/o attachments)
Judy Linton – ACOE (w/o attachments)
Sebastian Degens – Port of Portland (w/o attachments)
Cheryl Koshuta – Port of Portland (w/o attachments)

Bcc: Jeff Ring
John Childs
Bob Moulton
Marcel Hermans

December 13, 2000

Writer's Direct Line: (503) 240-2014

Ms. Judy Linton, Regulatory Project Manager
Portland District, US Corps of Engineers
CENWP-CO-GP
PO Box 2946
Portland, Oregon 97208



Re: US Fish and Wildlife Service Comments on Marine Terminal 6 Dredging

Dear Judy:

We are writing to provide our response to the US Fish and Wildlife Service's Fish and Wildlife Coordination Act comments replying to the Corps' Public Notice for the Port's Application for renewal of the Columbia River Maintenance Dredging Permit for the Port's Marine Terminal 6. (*Public Notice Date: October 17, 2000 – Corps Action ID 2000-00950.*) The Fish and Wildlife Service suggests that consultation under the Endangered Species Act ("ESA") would be required if the Corps determines that threatened or endangered species and/or critical habitat may be affected by projects that would be conducted under the Permit. We agree that if the Corps makes the "may affect" determination then consultation or conferencing under the ESA with the agency responsible for the recovery of the relevant listed species is appropriate.

It is our understanding that the Public Notice which the Service is responding to was not intended to fulfill the requirements of the Endangered Species Act where the Corps has determined that listed species may be impacted by projects that would occur under the Permit. Rather, the Corps has separately corresponded with the US National Marine Fisheries Service to initiate ESA consultation because the Corps has determined that "the proposed work, individually and cumulatively, may affect but is not likely to adversely affect the listed species or their designated habitat." (*Corps November 15, 2000 letter to Michael Crouse, NMFS.*) All of the salmon and steelhead species identified within the Corps' letter to NMFS are species for which NMFS has primary responsibility.

You have advised us that the Corps has not fully determined whether the Permit renewal application for regular maintenance dredging at the Port's Marine Terminal 6 impacts species for which the Fish and Wildlife Service has Endangered Species Act responsibility. The Service's comments would seem to suggest that they see the potential for impact to the American Bald Eagle. The SW Washington/Columbia River coastal cutthroat trout, as the Service points out, are proposed for listing as threatened but are not yet listed under the Endangered Species Act. Therefore, consultation with respect to that species is not currently required by the Act.

In addition, you have advised us that the the Corps' view is that any impact of this Winter's maintenance dredging at Marine Terminal 6 on the SW Washington/Columbia River coastal cutthroat trout does not pose a jeopardy to the species and thus consultation would not be required since this is a proposed rather than a listed species. This Winter's dredging event will be conducted pursuant to the existing Permits from both the Corps and the Oregon Division of State Lands. We appreciate that response, as this season's dredging is urgently required in order to keep the Port's container terminal in operation.

As we have discussed regarding the Permit application and the Service's future concerns, the Port intends to discuss those concerns directly with US Fish and Wildlife staff.

As to some matters raised by the Service's comments we are able to provide the following information, which we hope will prove useful to the Corps.

The American Bald Eagle is listed as threatened under the ESA. The Service advises the Corps that the Eagle is present in the "project area". We believe that it is likely that American Bald Eagles are periodically in the vicinity of the Port's Marine Terminal 6, however there are no known nesting sites within the immediate project area defined by the Terminal and that portion of the Port's property and submerged lands directly involved with the Permitted activities.

The Fish and Wildlife Service expresses concerns regarding the presence of contaminants at Terminal 6. In particular the Service identifies concerns with the potential release of TBT to the surrounding waters during dredging with resultant possible impact to biota.

Tri-n-butyltin (TBT) is a compound common to marine antifouling paints. The presence of TBT in marine sediments is wide spread in coastal areas and generally occurs on surface sediments. As vessels make contact with docks, occasionally some paint is chipped off. The current literature suggests that at concentrations of one (1) ug/l, TBT in paint can be toxic to some marine organisms. Some algae can degrade TBT at concentrations of 25 ug/l. TBT undergoes sequential debutylation as it degrades. The kinetic degradation pathway analysis completed by Jingfeng Feng, Univ. of Minnesota in 1995 shows TBT degrades to DBT then MBT and finally tin. (See summary of Dr. Feng's work attached to this letter.)

Many organic materials degrade on a predictable schedule. Degradation is measured in half-lives or the period required for one-half of a compound to change to its next lower state. This concept allows scientists to estimate when a material will no longer exceed a particular standard or be present in an estimated amount based on the concentration in a particular sample. The most recent research on the half-life of organotins was performed by Sarradin, P.M; Lapaquellerie, Y.; Astruc A.; Latouche, C. and Astruc, M in France and reported in *Sci Total Environ*, August 18, 1995. This peer-reviewed technical paper indicated that the half-life of TBT was approximately 2.1 years and for DBT and MBT 1.9 and 1.1 years, respectively. (See summary of Dr. Sarradin's work attached to this letter.) Based on these rates, the sediments tested in 1998 would have degraded below thresholds employed in tests at the dredging and disposal sites during the year 2000.

Appendix 8A of the Dredged Material Evaluation Framework, Lower Columbia River Management Area, summarizes testing, reporting and evaluation of tributyltin data. The available literature indicates that the toxicity and bioaccumulation of TBT are affected by many factors including organic carbon in the sediment and water, pH, salinity, clay fraction and the presence of inorganic constituents such as iron oxides. TBT is usually measured in sediment interstitial water and in tissues. The Screening Level (SL) concentration for interstitial water of 0.15 ug/L was set 2/3 below the chronic level for impacts to organisms reported in the literature. The bioaccumulation trigger was initially established at 219 ug/kg nationally but reduced in the Columbia River Management Area to 0.15 ug/l to reflect SL concentrations for interstitial water.

Dredging may expose new sediments to river water flows that may have entrained freshwater phytoplankton. To minimize the potential for bioaccumulation, dredging is confined to a period during the winter when plant production levels are low due to reduced sunlight and water temperatures and ambient turbidity is high. These conditions reduce and tend to limit photosynthesis to the upper few meters of the water column. Potential uptake of organotins in the food chain at a depth of 40 feet is thus minimized.

In the course of its operation at T-6, the Port sampled the sediments at T-6 during October and December of 1997 and the results were negative for TBT. The Port contracted with Hart Crowser, Inc., a national firm of environmental scientists and engineers with recognized expertise in river sediment issues, to perform sediment quality tests at T-6 in 1998 employing the Environmental Protection Agency (EPA), Corps of Engineers, Oregon Department of Environmental Quality and Washington Department of Ecology approved testing procedures. These tests showed TBT exceeded the screening level of 0.15 ug/l with a reading of 0.33 ug/l. Sediment tests performed by Hart Crowser in September 2000 showed TBT levels of 0.087 ug/l and 0.096 ug/l. Each of the TBT levels in the samples collected in September 2000 were below the screening level.

Total DDT is also a standard constituent of concern and is analyzed during dredge material characterization. Total DDT is compared to a LCRMA screening level of 6.9 ug/kg and a maximum level of 69 ug/kg. Analytical results from the 1998 T-5 Berth 501 sampling event indicated the samples contained 14.9 and 6.5 ug/kg of Total DDT. Sampling of T-5 Berth 501 and T-5 Berth 503 in 1999 indicated Total DDT was below the analytical detection limit and well below the LCRMA screening level.

The Service's comments also reference DDT, PCB and DDE contamination in the context of sampling done at the time of a dredging event or in conjunction with the rehandle facility return water. With regards to DDT we can say that previous sampling analysis of Total DDT at T-6 consisted of four phases that included two sampling events in 1997, one sampling event in 1998 and one in 2000. The 1997 test indicated a low-level exceedence of the screening level standard for DDT in one sediment sample. During that test duplicate samples from a second site were inconsistent and exhibited high analytical variability. Test levels for that second site showed readings of 8.96 and 52.07 ug/kg against a standard screening level of 6.9 and a ML of 69.0 ug/kg.

The second sampling event in 1997 was a more comprehensive program to determine the exact location of the DDT at T-6. This sampling event indicated DDT levels were all below the LCRMA screening level. In 1998, the sampling indicated DDT levels were again below the LCRMA screening level. Three additional core samples were analyzed in 2000 and reflected values of 10.5, 7.9 and 9.7 ug/kg. These were slightly above the standard screening level of 6.9 ug/kg but well below the bioaccumulation trigger of 50 ug/kg. (For additional detail, see the Hart Crowser 2000 Dredged Material Characterization Study.) Thus the Port is advised by its consultants that the DDT present in the T-6 sediments should not pose an impediment to the Port's proposed dredging and disposal.

Regarding the rehandle facility, we can advise that the only contaminant present in the elutriate tests from the material to be managed at the upland site for the currently proposed project is TBT. Since it is used in marine antifouling paints, it is designed not to be particularly water-soluble. The EPA and the Corps establish acceptable water quality contaminant concentrations for the water flowing from the disposed material. The tests to measure those concentrations are referred to as elutriate tests.

The Port reviewed the dewatering process with Oregon DEQ and agreed on the elutriate tests employed to measure return flow constituents. The Port intends to monitor and test elutriate water during its settling period and prior to its return to the Columbia River.

Tests performed by Hart Crowser for TBT in 2000 indicated that the analytical result for TBT in the leachate was below the EPA established WQC*20 level. The WQC*20 level is the EPA water quality criteria times an attenuation factor of 20 used to evaluate protection of aquatic life from seepage along the river bank. Analytical results indicated all constituents of concern met this requirement. In the one-day elutriate test, TBT

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exceeded the draft EPA chronic criterion by about a factor of two. Commensurate with the rapid decrease in Total Suspended Solids, TBT will decline below the draft criteria within a few days of settling, which was confirmed by the 7-day elutriate tests performed by Hart Crowser. No other chemical constituents exceeded their chronic or acute water quality criteria in the effluent from the one-day tests, including DDT. No chemical constituents exceeded their chronic or acute water quality criteria in the effluent from the seven-day test.

Presumptively, if there are no other contaminants and the constituents are not present during a period when elutriates would be held on site, then elutriate flows will be clean. However, the Port intends to analyze and test elutriate flows at the upland site during disposal but prior to return of the water to the river.

We hope that these responses are helpful to the Corps and you should feel free to share these responses with the US Fish and Wildlife Service. We will try and meet with the Service as soon as practical and we will keep you apprised of those discussions. If you have any questions or concerns please give me a call.

Very truly yours,

Pad Quinn
Environmental & Safety Manager
Marine Department

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bc:

J. W. Ring
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